

## Just-in-Time Simulation Platform, Phase II

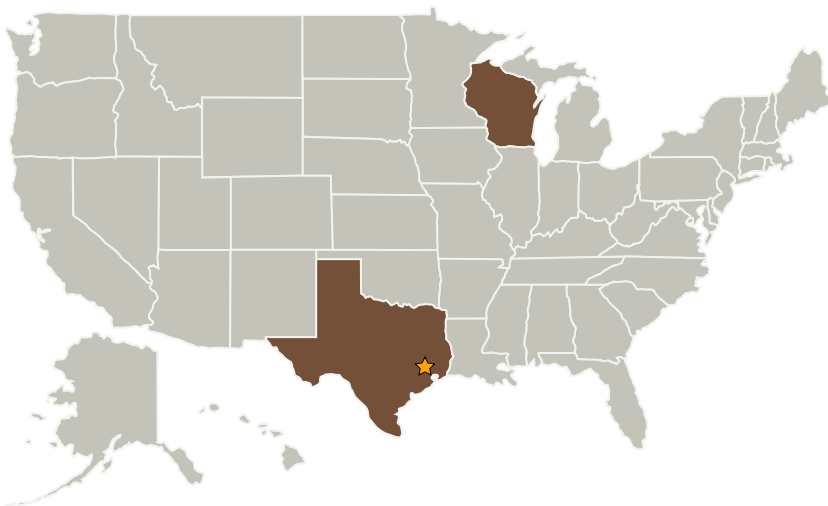
Completed Technology Project (2008 - 2010)



## Project Introduction

Long duration spaceflight and exploration missions will require complex operations and demanding tasks. Success will therefore depend on the knowledge and flexibility of the crew and the critical tools at their disposal. The purpose of this Phase II project is to develop a software tool that combines intelligent tutoring (or logic) with highly interactive 3D simulation software to create an on-demand situational training and operations support system. The platform will include a user interface that allows subject matter experts -- not programmers - to author the logic and intelligent portion of each simulation in a non-programming environment for more cost effective training systems development. The project includes the creation of two new application program interfaces (API) an XML schema and several new Java functions to allow for communication between the logic engine software and the 3D scene. A menu-driven authoring interface will then be created. The feasibility of the system was determined in the Phase I project, and demonstrated with a 3D simulated NASA EVA decontamination trainer. For Phase II, a prototype of the system will be created for a current NASA scenario-based training system to test the commercial-readiness of the authoring tool.

## Primary U.S. Work Locations and Key Partners



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## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Center / Facility:

Johnson Space Center (JSC)

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Orbital Technologies Corporation	Supporting Organization	Industry Women-Owned Small Business (WOSB)	Madison, Wisconsin

Primary U.S. Work Locations	
Texas	Wisconsin

## Project Transitions

 **July 2008:** Project Start **July 2010:** Closed out

## Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

## Technology Areas

**Primary:**

- TX07 Exploration Destination Systems
  - └ TX07.3 Mission Operations and Safety
    - └ TX07.3.3 Training